

## **ABSTRACT**

### **BACKGROUND:**

Periodontitis is a chronic inflammatory disease caused by bacterial infection of the supporting tissues around the teeth. The removal of bacterial deposits and all the factors that favour its accumulation is the primary treatment goal of phase I therapy. However bacteria invading the periodontal connective tissue cannot be eliminated by SRP alone. To disinfect the entire periodontal pocket and to achieve maximum gingival healing, laser therapy or local drug delivery devices may be used. This study compares the treatment outcome of diode laser therapy or tetracycline fibres as adjuncts to SRP in generalised chronic periodontitis patients.

### **AIM:**

To compare the changes in the sites treated with scaling and root planing alone with sites treated with scaling and root planing along with adjunct use of diode laser or scaling and root planing along with usage of tetracycline fibers as local drug delivery agents in patients with generalised chronic periodontitis.

### **MATERIALS AND METHODS:**

90 sites were divided into 3 groups with 30 sites in each group.

Group I- Sites treated with scaling and root planing alone

Group II- Sites treated with scaling and root planing along with use of diode laser (1.5 w,970nm,30sec,continuous wave).

Group III- Sites treated with scaling and root planing along with placement of tetracycline fibers (periodontal plus AB)

Clinical index and clinical parameters such as Gingival index(GI), Periodontal pocket depth (PPD), Clinical attachment level (CAL) were evaluated and compared within and between the groups at baseline and at 3 rd month.

### **RESULTS:**

When baseline GI scores and post operative GI scores were compared within the group change was found to be statistically significant and between the groups the change was not statistically significant. When baseline probing depth and baseline CAL was compared between post operative probing depth and post operative CAL within the group and between the groups the reduction in pocket depth and gain in clinical attachment level was found to be statistically significant.

### **CONCLUSION:**

Based on the findings of the present study, treatment with diode laser or tetracycline Fibers as an adjunct to SRP may improve periodontal status compared to SRP alone.